



## Master's thesis in the field of microscopy-based microbial natural product research

The AG Bode (Department of Natural Products in Organismic Interactions) at the Max-Planck-Institute for Terrestrial Microbiology looks for a motivated student who wants to do his or her **Master's thesis in the field of natural product research**.

We are working with bacteria of the genera *Xenorhabdus* and *Photorhabdus*, which are entomopathogenic (insect-pathogen) and have a fascinating life cycle including symbiosis and virulence. In this life cycle, the bacteria produce many specialized metabolites of diverse function, including some for nematode development (their symbiotic host), insect killing or antimicrobial action (potential antibiotics). For this, they often use large enzymes called **non-ribosomal peptide synthetases (NRPS)**.

The aim of the thesis is to investigate the **gene expression dynamics** of these metabolite-producing enzymes. The candidate will use different microscopy techniques, as well as flow cytometry/FACS, to study NRPS expression across scales.

If you are interested and/or want to know more about the project, please contact me:

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Group homepage:

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**We look forward to your application!**

